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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/280,618	03/29/1999	MAHDI S. CHAMBERS	CHAMBERS-1	6099
7590	01/31/2005		EXAMINER	
JOHN E. CURTIN HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			GEORGE, KEITH M	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	CHAMBERS, MAHDI S.
	Examiner	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 15 September 2004.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-9 and 11-41 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9 and 11-41 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 29 March 1999 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 11-17, 19, 23-29, 32-37 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory et al., U.S. Patent 6,289,097, hereinafter Gregory in view of Low et al., U.S. Patent 6,131,095, hereinafter Low.

3. Referring to claims 1, 19, 23, 29 and 41, Gregory teaches a method and system for a redirect repeater providing network access including, as shown in figure 1, a DLC (14) (switch serving the origin location), a redirect repeater (16) and a public switch or PSTN (18) (switch serving the destination location). The redirect repeater receives signals from a T1 line of the DLC employing the GR-303 interface (receiving signaling data from a first switch serving the origin location) (column 4, lines 15-17). The redirect repeater delays messages until it determines whether the telephone call is carrying computer data to a computer network or the telephone call is an ordinary voice telephone call to be carried by the PSTN (determine the traffic type from the signaling data). For ordinary voice telephone calls carried by the PSTN, the redirect repeater simply passes through or repeats messages from the telephone subscriber to the PSTN or public switch. For telephone calls to the computer network, the redirect repeater establishes a connection and redirects messages from the telephone subscriber to the computer

network (direct signaling data to said destination location associated with the first or second traffic type) (column 4, lines 37-47). Inherently, the second switch serving either the PSTN or the computer network will direct the traffic from the origin to the correct destination. Gregory teaches all of the above with the possible exception of clearly stating that the method described can be used over a Public Switched Telephone Network (PSTN). Gregory does provide some facts that would lead the skilled reader to understand that the method could be utilized in a PSTN when describing the Digital Loop Carrier (DLC). Gregory teaches that the use of DLC systems enables a significant reduction in the amount of cable required to provide telephone service to subscribers (column 1, lines 19-21). One of ordinary skill in the art would understand that the PSTN is the system primarily referred to as the system that provides telephone service to subscribers. Moreover, Low clearly states that if a multiplexing modulation scheme was used on a telephone line to allow voice and data to be simultaneously carried, then the PSTN would need to separate the combined data and voice streams coming from an origin at some point and pass each to its appropriate destination (the Internet data being forwarded to the ISP providing the SLIP/PPP connection for the origin and the voice stream being passed to the voice destination) (column 25, lines 46-55). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that Gregory was clearly indicating a method that could be used within a PSTN and that Low has specifically identified a reason for doing so. One of ordinary skill in the art would have been motivated to combine the teachings of Gregory and Low because they both teach a method of splitting Internet and Voice traffic to alleviate traffic on the voice switch and as Low specifically points out a number of such schemes already exist (column 25, lines 49-50).

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4. Referring to claim 2, Gregory and Low teach the method described in reference to claim 1 above and Gregory also clearly teaches that the redirect signal can be supported by a common specification such as the Bellcore GR-303 specification and that possible digit strings for the redirect signal may include: seven digit local telephone numbers, special combination of DTMF \*, # and digits, ten digit national numbers or more than ten digit numbers. All of these signaling methods include more than one message; therefore they all contain an initial message and messages following the initial message.

5. Referring to claims 3, 4 and 24-28, Gregory and Low teach the method described in reference to claims 1 and 23 above and Gregory also clearly teaches that several methods can be used to determine whether calls should be redirected to the computer network. The redirect repeater maintains an access table identifying telephone numbers that are provided telephone service through the redirect repeater (matching called directory numbers with an entry of a predetermined table) (column 9, lines 24-30).

6. Referring to claims 11, 12, 32 and 33, Gregory and Low teach the method described in reference to claims 1 and 23 above where Gregory clearly teaches in figures 1 and 3 that calls can terminate at the PSTN (18) or to the computer network through RAS (26). Inherently a public switch providing access to the PSTN is a class 5 circuit switch.

7. Referring to claim 13, 14, 15, 34 and 35, Gregory and Low teach the method described in reference to claims 1, 12 and 23 above and Gregory also teaches that the computer network can be accessed through other types of connections such as a T1 trunk, PRI interface or a public or private packet network such as Frame Relay or ATM.

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8. Referring to claims 16 and 36, Gregory and Low teach the method described in reference to claims 1 and 23 above and Gregory also clearly teaches that in North America a DLC commonly uses a 1.544 Mbps T1 channel that provides 24 channels of voice grade circuits over a single copper connection (column 3, lines 30-32).

9. Referring to claims 17 and 37, Gregory and Low teach the method described in reference to claims 1 and 23 above and Gregory also clearly teaches that after recognizing the redirect signal, the redirect repeater inserts messages to send to the PSTN switch to indicate to the switch that the redirect repeater will redirect the telephone call to the computer network. The inserted messages inform the switch and allow the switch to maintain call record information related to the status of the telephone call (column 5, lines 21-27).

10. Claims 5-9, 18, 20-22, 30, 31 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory and Low in further view of Deschaine et al., U.S. Patent 6,327,258, hereinafter Deschaine.

11. Referring to claims 5-9, 30, 31, 39 and 40, Gregory and Low teach the method described in reference to claims 1 and 23 above with the possible exception of a first protocol and a second protocol, translating the signaling message from the first to the second protocol and then forwarding it to the appropriate destinations. Deschaine discloses a method comprising, first protocol (i.e. col. 4, ll. 32-33, SS7) and second protocol (i.e. col. 5, ll. 10-12, Q.931), translating the signaling message from the first to second protocol and forward to appropriate destinations (i.e. col. 5, ll. 9-12, SS7 signaling is converted to Q.931 for use over standard interface and network terminator 54 provides the signal interface). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to convert the protocol

transmitted by Gregory to standard signaling message over standard interface as taught by Deschaine. One of ordinary skill in the art would have been motivated to do this because the use of standards allows for interoperability among many diverse components.

12. Referring to claims 18 and 38, Gregory and Low teach the method described in reference to claims 1 and 23 above with the possible exception that the call information is selected from the group consisting of start time stamp, end time stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B-channel, outbound B-channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification. However, Deschaine shows that the system includes management information (i.e. fig. 5, 50). start time stamp, end time stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B-channel, outbound B-channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification are well known in the art in the area of telecommunication routing. Therefore, it would have been obvious to an ordinary person skilled in the art to include selecting from this group with the method and apparatus of Gregory. The motivation is to allow the user to use another network that is available in order to reduce congestion of the telephone network.

13. Referring to claims 20-22, Gregory and Low teach the method described in reference to claim 19 above with the possible exception of translating a first protocol to a second protocol. Deschaine discloses a router comprising receiving setup information of first protocol (i.e. col. 5, ll. 22-53, received SS7 message), determine call type (i.e. col. 5, ll. 22-25), for normal calls, it's

forwarded (i.e. col. 5, ll. 26-35), translating to second protocol for second call type (i.e. col. 5, ll. 6-11, signaling between line access switching end office switch and STP are done using standard signaling message Q.931 which are converted and forwarded from original signaling messages), controlling switch ATM switch (i.e. col. 6, ll. 25-54, EO uses master controller to control routing and inform the ATM switch for ATM network 46). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the router taught by Deschaine in the system of Gregory. One of ordinary skill in the art would have been motivated to this in order to avoid congestion on a PSTN caused by long hold times of Internet calls (Deschaine, column 1, line 66 - column 2, line 2).

***Response to Arguments***

14. Applicant's arguments with respect to claims 1-9 and 11-41 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 571-272-3099. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George  
27 January 2005



CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600  
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